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Haynes and Boone, LLP IP Section 2323 Victory Avenue SUITE 700 Dallas, TX 75219			HENRY, MARIE/GEORGES A	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/575,433

**Applicant(s)**

RO ET AL.

**Examiner**

Marie Georges Henry

**Art Unit**

2455

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☒ Claim(s) 1-39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/C)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 7/28/2009

### **DETAILED ACTION**

1. This is in response to the amendment filed on 07/28/2009. Claims 1, 4, 6, 12-14, and 16-18 are amended. Claim 20-39 are new. Claims 1-39 are pending. Claims 1-39 are directed to method and apparatus for converting the modality of multimedia contents to support the quality of service according to media resource.

2. This application currently names joint inventors. In considering patentability, of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject*

*matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

4. Claims 18-19, 27-28, and 31-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Modality Conversion in Content Adaptation for Universal Multimedia Access by information and Communications University** (hereinafter "MCCA") in view of **Adapting Multimedia Internet Content for Universal Access** (hereinafter "AMICUA").

Regarding claim 18, MCCA discloses In a system for processing multimedia contents, a method for building an overlap content model for a multimedia item which is available in any one of a plurality of alternative modalities, the overlap content model being for providing a desired modality from the plurality of modalities in response to a resource value which is a value of one or more media resources, the method comprising:

(2) determining, from the content value specifications, sub-sets of said sets, wherein for each said sub-set, one of the content value specifications provides a maximum content value for each resource value in the sub-set, wherein the modality associated with said one of the content value specifications is the desired modality for each resource value in the sub-set (MCCA, page 436, column 2, lines 35-41, fig. 3, the

final content value function will be the upper hull of the overlapped model, and the intersection points of the model represent the boundaries between the modalities );

wherein at least one of the sub-sets includes a resource value belonging to at least two of said sets (MCCA, page 435, column 2, lines 35-41, given a resource value  $R_c$ , two others values  $R_i$  and  $V_i$  are disclosed that lead to a better modality value);

wherein at least one said content value specification is obtained by combining quality specifications associated with respective different qualities, each quality specification providing, for each resource value in the associated set, a content value based on the respective quality (MCCA, page 435, column 2, lines 35-41, equation (1), the value of the modality is depending on capacity, human preferences, and resource values).

Although MCCA discloses a conversion of multimedia contents, he does not disclose the method (1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources; the content value specification providing a content value for each of said one or more resource values in the associated set, wherein the sets associated with at least two of the modalities overlap.

AMICUA discloses the method (1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of

which is a value of the one or more media resources (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits),

the content value specification providing a content value for each of said one or more resource values in the associated set, wherein the sets associated with at least two of the modalities overlap (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.

Regarding claim 19, MCCA and AMICUA disclose the method of claim 18 wherein for at least said one content value specification, the associated quality specifications are scaled quality specifications, and said one content value specification is obtained from a sum of the scaled quality specifications (MCCA, page 435, column 2, lines 23-41, the value of the modality is sum of different value  $R_i$  of the resource constraint).

Regarding claim 27, MCCA and AMICUA disclose an apparatus for performing the method of claim 18. Claim 27 has the same limitations claim 18; therefore, claim 27 is considered an obvious variation.

Regarding claim 28, MCCA and AMICUA disclose an apparatus for performing the method of claim 19. Claim 28 has the same limitations claim 19; therefore, claim 28 is considered an obvious variation.

Regarding claim 31, MCCA discloses a method of converting a modality of multimedia contents to support Quality of Service (QoS) of the multimedia contents according to media resources, comprising the steps of:

receiving a modality conversion descriptor in which characteristics of modality conversion of the multimedia contents are described (MCCA, page 435, column 1, lines 18-21, a decision engine capable of describing and converting content is disclosed);

receiving the multimedia contents (MCCA, page 435, fig.1, column 1, a process is disclosed receiving multimedia media content) ; and

converting the modality of the multimedia contents into a modality that is determined according to a media resource and the modality conversion descriptor, (MCCA, page 435, fig.1, column 2, a conversion of multimedia content according to various resources is disclosed),

Although MCCA discloses a conversion of multimedia contents, he does not disclose the method wherein the modality conversion descriptor describes a modality of the media resource, a scale factor for the modality of the media resource, a plurality of quality curves for the modality of the media; a scale factor for each quality curve, wherein the quality curves and the scale factors define a content value curve for the modality of the media.

AMICUA discloses wherein the modality conversion descriptor describes a modality of the media resource, a scale factor for the modality of the media resource, a plurality of quality curves for the modality of the media resource (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits), and

a scale factor for each quality curve, wherein the quality curves and the scale factors define a content value curve for the modality of the media resource (AMICUA, page 12, fig. 2, a modality function based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.



Regarding claim 32, MCCA discloses the method according to claim 31, wherein the media resource is a network or terminal to which the multimedia contents are provided (MCCA, page 438, column 2, line 45-51, a multimedia server and various client type device disclosed are processing multimedia contents).

Regarding claim 33, MCCA discloses the method according to claim 31, wherein converting the modality comprises:

determining an optimal modality for the media resource using the conversion boundaries; and converting the multimedia contents into the determined optimal modality (MCCA, page 438, column 1, lines 19-32, a method of determining and converting a maximum content value is disclosed).

Although MCCA discloses a conversion of multimedia contents, he does not disclose the method obtaining conversion boundaries using the content value curves and scale factors for the modalities.

AMICUA discloses obtaining conversion boundaries using the content value curves and scale factors for the modalities (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various

transcoded versions of the content; values are obtained also with different functional relationships with resource in bits);

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.

Regarding claim 34, MCCA discloses the method according to claim 33.

Although MCCA discloses a conversion of multimedia contents, he does not disclose the method wherein the conversion boundaries are values of the media resource corresponding to intersection points where the content value curves intersect with each other when the content value curves for the modalities overlap with each other according to the scale factors.

AMICUA discloses wherein the conversion boundaries are values of the media resource corresponding to intersection points where the content value curves intersect with each other when the content value curves for the modalities overlap with each other according to the scale factors (AMICUA, page 12, fig. 2, a modality function based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.

Regarding claim 35, MCCA discloses the method according to claim 31.

Although MCCA discloses a conversion of multimedia contents, he does not disclose the method wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities.

AMICUA discloses wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.

Regarding claim 36, MCCA discloses an apparatus for converting a modality of multimedia contents to support QoS of the multimedia contents according to media resources, comprising:

means for receiving a modality conversion descriptor in which characteristics of modality conversion of the multimedia contents are described (MCCA, page 435, column 1, lines 18-21, a decision engine capable of describing and converting content is disclosed); and

means for converting the modality of the multimedia contents into a modality that is determined according to a media resource and the modality conversion descriptor (MCCA, page 435, fig.1, column 2, a conversion of multimedia content according to various resources is disclosed).

Although MCCA discloses a conversion of multimedia contents, he does not disclose the system wherein the modality conversion descriptor describes a modality of the media resource, a scale factor for the modality of the media resource, a plurality of quality curves for the modality of the media resource, and a scale factor for each quality curve, wherein the quality curves and the scale factors define a content value curve for the modality of the media resource.

AMICUA discloses wherein the modality conversion descriptor describes a modality of the media resource, a scale factor for the modality of the media resource, a

plurality of quality curves for the modality of the media resource, and a scale factor for each quality curve, wherein the quality curves and the scale factors define a content value curve for the modality of the media resource (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting system in order to create a converting system with adapting in order to match the capability of the client device.

Regarding claim 37, MCCA discloses the apparatus according to claim 36,

Although MCCA discloses a conversion of multimedia contents, he does not disclose means for obtaining conversion boundaries using the content value curves and scale factors for the modalities; and means for converting the modality of the multimedia contents into the determined optimal modality.

AMICUA discloses the system wherein the modality conversion means comprises: means for obtaining conversion boundaries using the content value curves and scale factors for the modalities; and means for converting the modality of the

multimedia contents into the determined optimal modality (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits)

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting system in order to create a converting system with adapting in order to match the capability of the client device.

Regarding claim 38, MCCA discloses the apparatus according to claim 37.

Although MCCA discloses a conversion of multimedia contents, he does not disclose the system wherein the conversion boundaries are values of the media resource corresponding to intersection points where the content value curves intersect with each other when the content value curves of the modalities overlap with each other according to the scale factors.

AMICUA discloses the system wherein the conversion boundaries are values of the media resource corresponding to intersection points where the content value curves intersect with each other when the content value curves of the modalities overlap with each other according to the scale factors (AMICUA, page 12, fig. 2, a modality function

based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting system in order to create a converting system with adapting in order to match the capability of the client device.

Regarding claim 39, MCCA discloses the apparatus according to claim 36.

Although MCCA discloses a conversion of multimedia contents, he does not disclose the system wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities.

AMICUA discloses the system wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting system in order to create a converting system with adapting in order to match the capability of the client device.

5. Claims 1-5, 7-17, 20-26, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **MCCA**, in view of **AMICUA**, and further in view of **Tso et al.** (hereinafter "Tso") (**US 6,421,733 B1**).

Regarding claim 1, MCCA, AMICUA, and Tso disclose the method of claim 12 further comprising, converting the multimedia item's modality into the desired modality (MCCA, page 438, column 1, lines 19-32, converting content of items into a maximum content value is disclosed).

Regarding claim 2, MCCA, AMICUA, and Tso disclose the method according to claim 1, wherein the one or more media resources are one or more resources of a network or terminal to which the multimedia item is provided in the desired modality (MCCA, page 438, column 2, lines 46-51, a server storing a multimedia content disclosed is providing a media resource according to client modality devices such as Laptops).

Regarding claim 3, MCCA, AMICUA, and Tso disclose the method according to claim 1.

Although MCCA and Tso discloses a conversion of multimedia contents and a selecting feature, they do not disclose the method wherein the content value specifications are obtained from content value curves and scale factors for said modalities.

AMICUA discloses the method wherein the content value specifications are obtained from content value curves and scale factors for said modalities (AMICUA,



page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 4, MCCA, AMICUA, and Tso disclose the method according to claim 3, wherein selecting the desired modality comprises: obtaining conversion boundaries using the content value curves and scale factors for the modalities; and determining the desired modality using the conversion boundaries (MCCA, page 438, column 1, lines 19-32, a method of determining and converting maximum content values is disclosed).

Regarding claim 5, MCCA, AMICUA, and Tso disclose the method according to claim 4.

Although MCCA and Tso discloses a conversion of multimedia contents and a selecting feature, they do not disclose the method wherein the conversion boundaries are resource values at which the content value curves associated with overlapping sets intersect with each other.

AMICUA discloses the method wherein the conversion boundaries are resource values at which the content value curves associated with overlapping sets intersect with each other (AMICUA, page 12, fig. 2, a modality function based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 7, MCCA AMICUA, and Tso disclose an apparatus for performing the method of claim 12. Claim 7 has the same limitations claim 12; therefore, claim 7 is considered an obvious variation.

Regarding claim 8, MCCA, AMICUA, and Tso disclose an apparatus for performing the method of claim 1. Claim 8 has the same limitations claim 1; therefore, claim 8 is considered an obvious variation.

Regarding claim 9, MCCA, AMICUA, and Tso disclose an apparatus for performing the method of claim 2. Claim 9 has the same limitations claim 2; therefore, claim 9 is considered an obvious variation.

Regarding claim 10, MCCA, AMICUA, and Tso disclose an apparatus for performing the method of claim 13. Claim 10 has the same limitations claim 13; therefore, claim 13 is considered an obvious variation.

Regarding claim 11, MCCA, AMICUA, and Tso disclose an apparatus for performing the method of claim 3. Claim 11 has the same limitations claim 3; therefore, claim 11 is considered an obvious variation.

Regarding claim 12, MCCA, AMICUA, and Tso disclose the method of claim 20.

Although MCCA discloses a converting feature, he does not disclose the method wherein the sets associated with at least two of the modalities overlap.

AMICUA discloses the method wherein the sets associated with at least two of the modalities overlap (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits).

Although AMICUA and MCCA disclose the method of obtaining content values curves and converting to a desired modality, they do not disclose the desired modality is selected using the content value specifications of the modalities whose associated sets contain the resource value  $v_1$ .

Tso discloses the method and the desired modality is selected using the content value specifications of the modalities whose associated sets contain the resource value v1 (Tso, column 6, lines 37-42, a selected transcode Service provider uses a separate thread to read the incoming data stream, transcode it, and place it within, the entry of service-side cache memory).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 13, MCCA, AMICUA, and Tso disclose the method of claim 24 wherein the sets associated with at least two of the modalities overlap; and the method further comprises:

determining, from the content value specifications, sub-sets of said sets, wherein for each said sub-set, one of the content value specifications provides a maximum content value for each resource value in the sub-set, wherein the modality associated with said one of the content value specifications is the desired modality for each resource value in the sub-set (MCCA, page 436, column 2, lines 35-41, fig. 3 the final content value function will be the upper hull of the overlapped model, and the intersection points of the model represent the boundaries between the modalities );

wherein at least one of the sub-sets includes a resource value belonging to at least two of said sets (MCCA, page 436, fig 2, different modalities are disclosed that have resource intervals)

Regarding claim 14, MCCA, AMICUA, and Tso disclose the method of claim 12 wherein for each modality, the associated content value specification is a scaled content value specification equal to a product of a preliminary content value specification and a scale factor, and the content value specifications are defined by the preliminary content value specifications and the scale factors (MCCA, page 435, column 2, lines 31-35, the content of modalities is disclosed depending of the modalities multiplied by a factor).

Regarding claim 15, MCCA, AMICUA, and Tso disclose the method of claim 12 wherein at least two content value specifications associated with sets containing the resource value  $v_1$  provide respective different content values for the resource value  $v_1$ , and the desired modality is associated with the content value specification which provides the greatest content value for the resource value  $v_1$  (MCCA, page 435, column 2, lines 35-41, given a resource value  $R_c$ , two others values  $R_i$  and  $V_i$  are disclosed that lead to a better modality value).

Regarding claim 16, MCCA, AMICUA, and Tso disclose the method of claim 13 wherein determining the sub-sets comprises determining boundary resource values which are resource values at which at least two content value specifications provide equal content

values, said boundary resource values comprising one or more boundaries of one or more sub-sets (MCCA, page 435, column 2, lines 31-35, the content of modalities is disclosed depending of the modalities multiplied by a factor).

Regarding claim 17, MCCA, AMICUA, and Tso disclose the method of claim 13 wherein for each modality, the associated content value specification is a scaled content value specification equal to a product of a preliminary content value specification and a scale factor, and the content value specifications are defined by the preliminary content value specifications and the scale factors (MCCA, page 435, column 2, lines 31-35, the content of modalities is disclosed depending of the modalities multiplied by a factor).

Regarding claim 20, MCCA discloses In a system for processing multimedia contents, a method for selecting a desired modality from a plurality of modalities each of which is adoptable by a multimedia item as an alternative to any other modality of the plurality of modalities, the desired modality being for adopting the multimedia item to one or more media resources, the method comprising:

(1) the system obtaining data which define, for each said modality, a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources, the content value specification providing a content value for each of said one or more resource values in the associated set

(MCCA, page 435, column 2, lines 35-41, the value of the modality is sum of different value  $R_i$  of the resource constraint);

(2) the system obtaining a resource value  $v_1$  belonging to at least one of the sets (MCCA, page 435, column 2, lines 35-41, given a resource value  $R_c$ , two others values  $R_i$  and  $V_i$  are disclosed that lead to a better modality value).

Although MCCA discloses a conversion of multimedia contents, he does not disclose the method wherein for at least one modality which is one of said modalities, the associated content value specification depends on each of a plurality of quality specifications that are different from each other; wherein each quality specification associates each resource value in the content value specification's associated set with a quality-specific content value for the modality, the associated set comprising a plurality of resource values; wherein for at least said one modality, the data defines the quality specifications to define the associated content value specification.

AMICUA discloses the method wherein for at least one modality which is one of said modalities, the associated content value specification depends on each of a plurality of quality specifications that are different from each other (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits),

wherein each quality specification associates each resource value in the content value specification's associated set with a quality-specific content value for the modality, the associated set comprising a plurality of resource values; wherein for at least said one modality, the data defines the quality specifications to define the associated content value specification (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits);

Although AMICUA and MCCA disclose the method of obtaining content values curves and converting to a desired modality, they do not disclose the method (3) the system selecting the desired modality from said modalities, the desired modality's content value specification's associated set containing the resource value v1.

Tso discloses the method (3) the system selecting the desired modality from said modalities, the desired modality's content value specification's associated set containing the resource value v1(Tso, column 6, lines 37-42, a selected transcode Service provider uses a separate thread to read the incoming data stream, transcode it, and place it within, the entry of service-side cache memory).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso



selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 21, MCCA, AMICUA, and Tso disclose the method of claim 20.

Although MCCA and Tso discloses a conversion of multimedia contents and a selecting feature, they do not disclose wherein for at least said one modality, the data defines a scale factor for each said quality specification, wherein the associated content value specification is defined by the quality specifications and the corresponding scale factors.

AMICUA discloses the method wherein for at least said one modality, the data defines a scale factor for each said quality specification, wherein the associated content value specification is defined by the quality specifications and the corresponding scale factors (AMICUA, page 12, fig. 2, a modality function based on scale factors is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 22, MCCA, AMICUA, and Tso disclose the method of claim 21.

Although MCCA and Tso discloses a conversion of multimedia contents and a selecting feature, the do not disclose the method wherein for at least said one modality, the associated content value specification is defined by the sum of the quality specifications scaled by the corresponding scale factors.

AMICUA discloses the method wherein for at least said one modality, the associated content value specification is defined by the sum of the quality specifications scaled by the corresponding scale factors (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 23, MCCA, AMICUA, and Tso disclose the method of claim 21, further comprising transmitting the multimedia item in the desired modality over a network to a recipient. (MCCA, page 438, column 2, lines 46-51, a server storing a multimedia content disclosed is providing a media resource according to client modality devices such as Laptops).

Regarding claim 24, MCCA, AMICUA, and Tso disclose the method of claim 20 further comprising transmitting the multimedia item in the desired modality over a network to a recipient (MCCA, page 438, column 2, lines 46-51, a server storing a multimedia content disclosed is providing a media resource according to client modality devices such as Laptops).

Regarding claim 25, MCCA, AMICUA, and Tso disclose the method of claim 20.

Although MCCA and Tso disclose a conversion of multimedia contents and a selecting feature, they do not disclose the method wherein one of the quality specifications is defined by PSNR (Peak Signal to Noise Ratio).

AMICUA discloses the method wherein one of the quality specifications is defined by PSNR (Peak Signal to Noise Ratio) (AMICUA, page 18, a desired value against value in all of other modes is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 26, MCCA, AMICUA, and Tso disclose the method of claim 25.

Although MCCA and Tso disclose a conversion of multimedia contents and a selecting feature, they do not disclose the method wherein another one of said quality specifications is defined by Mean Opinion Score (MOS).

AMICUA discloses the method wherein another one of said quality specifications is defined by Mean Opinion Score (MOS) (AMICUA, page 19, a optimum value is disclosed).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature and Tso selecting features into MCCA converting method in order to create a converting method with adapting and selecting features in order to match the capability of the client device.

Regarding claim 29, MCCA, AMICUA, and Tso disclose an apparatus for performing the method of claim 20. Claim 29 has the same limitations claim 20; therefore, claim 29 is considered an obvious variation.

Regarding claim 30, MCCA, AMICUA, and Tso disclose an apparatus for performing the method of claim 24. Claim 30 has the same limitations claim 24; therefore, claim 30 is considered an obvious variation.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **AMICUA**, in view of **MCCA**, and further in view of **Tso et al.** (hereinafter "Tso") (**US 6,421,733 B1**).

Regarding claim 6, AMICUA discloses, in a system for processing multimedia contents, a method for selecting a desired modality from a plurality of modalities each of which is adoptable by a multimedia item as an alternative to any other modality of the plurality of modalities, the desired modality being for adopting the multimedia item to one or more media resources, the method comprising:

(1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits),

the content value specification providing a content value for each of said one or more resource values in the associated set, wherein the sets associated with at least two of the modalities overlap (AMICUA, page 20, section 4.1, content value makes it possible for authors or users to specify value judgments about various transcoded versions of the content; values are obtained also with different functional relationships with resource in bits);

(2) obtaining a resource value  $v_1$  belonging to at least two of the sets (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits); and

wherein the content value specifications are obtained from content value curves and scale factors for said modalities (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits);

wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits).

Although discloses obtaining content value curves, he does not explicitly disclose the method wherein the method further comprises, after operation (3), converting the multimedia item's modality into the desired modality.

MCCA discloses the method wherein the method further comprises, after operation (3), converting the multimedia item's modality into the desired modality (MCCA, page 438, column 1, lines 19-32, converting content of items into a maximum content value is disclosed);

Although AMICUA and MCCA disclose the method of obtaining content values curves and converting to a desired modality, they do not disclose the method (3) selecting the desired modality from the modalities whose associated sets contain the

resource value v1, the desired modality being selected using the content value specifications of the modalities whose associated ranges sets contain the resource value v1.

Tso discloses the method (3) selecting the desired modality from the modalities whose associated sets contain the resource value v1, the desired modality being selected using the content value specifications of the modalities whose associated ranges sets contain the resource value v1 (Tso, column 6, lines 37-42, a selected transcode Service provider uses a separate thread to read the incoming data stream, transcode it, and place it within, the entry of service-side cache memory).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement MCCA converting method AMICUA adapting feature and Tso selecting features into AMICUA adapting method in order to create a adapting method with converting and selecting features in order to match the capability of the client device.

### **Response to Argument**

7. A. **The Applicant argues** that MCAA does not disclose "combining quality specifications associated with respective different qualities"(Remark, page 10, lines 15-16).

**The Examiner disagrees** because MCCA disclosed that a content value depends on resources, data size at terminal or bit rate of network, connection available as described by the equation (1) content value versus resources (MCCA, page 435, column 2, lines 23-36).

**B. The Applicant argues** that MCAA does not disclose "resource value in the associated set" (Remark, page 10, lines 26-27).

**The Examiner disagrees** because although MCCA discloses a conversion of multimedia contents, he does not disclose the method (1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources; the content value specification providing a content value for each of said one or more resource values in the associated set, wherein the sets associated with at least two of the modalities overlap.

AMICUA discloses the method (1) for each said modality, obtaining a content value specification associated with a set of one or more resource values each of which is a value of the one or more media resources (AMICUA, page 20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits),



Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.

**C. The Applicant argues** that MCAA does not disclose at least one content value specification is obtained from a sum of scaled quality specifications (Remark, page 11, lines 11-12).

**The Examiner disagrees** because MCAA discloses that the value of the content value is a sum of the different resources  $R_i$  (MCCA, page 435, column 23-41).

**D. The Applicant argues** that AMICUA does not disclose each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities (Remark, page 11, lines 25-26).

**The Examiner disagrees** because although MCCA discloses a conversion of multimedia contents, he does not disclose the method wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities.

wherein each of the content value curves is obtained by combining content value curves that are measured according to two or more different qualities (AMICUA, page

20, section 4.1, fig.3 shows a table where values are obtained with different functional relationships with resource in bits).

Therefore it would have been obvious for one having ordinary skill in the art at the time the invention was made to implement AMICUA adapting feature into MCCA converting method in order to create a converting method with adapting in order to match the capability of the client device.

### **Conclusion**

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

*A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of*

*the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.*

Any inquiry concerning this communication from the examiner should be directed to Marie Georges Henry whose telephone number is (571) 270-3226. The examiner can normally be reached on Monday to Friday 7:30am - 4:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272- 1000.

/Marie Georges Henry/

Examiner, Art Unit 2455

/saleh najjar/

Supervisory Patent Examiner, Art Unit 2455

